

REMARKS

Applicant respectfully requests reconsideration of the subject application.

Allowable Subject Matter

Applicant thanks the examiner for pointing out the allowable subject matter, including, claims 10 and 40.

Claim Objections

Claims 10 and 40 have been objected to as being dependent upon a rejected base claim.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-3 and 31-33 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Publication No. US 2002/0154634 A1 to Basso, et al. ("Basso"). Applicants reserve the right to swear behind Basso.

Claims 1 and 31

Applicants respectfully disagree with the rejection because Basso fails to describe each and every element of claims 1 and 31. Applicants request reconsideration of the rejected claims.

Claims 1 and 31 require maintaining a transmit count value, determining a release count value and comparing said transmit count value and said release count

value. Claims 1 and 31 also require de-allocating said storage element in response to comparing said transmit count value and said release count value. Since the values are compared, at least two separate values are required for de-allocating said storage response. Conversely, Basso describes the use of a multicast counter (MCC) used to determine when all the instances have been transmitted so that the reference frame can be discarded. (Basso, para. [0085]). Therefore, only one value is describe in Basso for determining when all the instances have been transmitted so that the reference frame can be discarded. Since only one value is described Basso fails to describe comparing said transmit count value and said release count value.

Because Basso fails to describe maintaining a transmit count value, determining a release count value, comparing said transmit count value and said release count value and de-allocating said storage element in response to comparing said transmit count value and said release count value; Basso fails to anticipate claims 1 and 31.

Claim 2-10

Applicants respectfully submit that claims 2-10 are dependent directly or indirectly on claim 1, thus include the same limitations as claim 1. As such, claims 2-10 are patentable for at least the same reasons as claim 1.

Claim 32-40

Applicants respectfully submit that claims 32-40 are dependent directly or indirectly on claim 31, thus include the same limitations as claim 31. As such, claims 32-40 are patentable for at least the same reasons as claim 31.

Claim Rejections under 35 U.S.C. §103(a)

Claims 4-6, 7, 9, 11-14, 16-28, 30, 34-37, and 39 have been rejected under 35 USC 103(a) as being unpatentable over Basso as applied to claims 1-3 and 31-33 above, in view of U.S. Patent No. 4,809,269 to Gulick ("Gulick").

Claims 8, 15, 28, and 38 have been rejected under 35 USC 103(a) as being unpatentable over Basso and Gulick as applied to claims 1-7, 9, 11-14, 16-28, and 30-37 above, and further in view of U.S. Patent No. 6,269,081 to Chow et al. ("Chow").

Claims 11, 17 and 24

Applicants respectfully disagree with the rejection because the combination of Basso and Gulick fails to describe each and every element of claims 11, 17, and 24. Applicants request reconsideration of the rejected claims.

Claims 11, 17, and 24 require an input module to store packet data within a storage element and to initialize a transmit count value. Furthermore, claims 11, 17, and 24 require a processing element to determine a release count value and a memory controller to increment said transmit count value. Moreover, claims 11, 17, and 24 require a memory controller to increment said transmit count value and to de-allocate said storage element in response to a determination that said incremented transmit count value is equal to said release count value.

Basso describes data structures, a method, and an associated transmission system for multicast transmissions on network processors in order both to minimize multicast transmission memory requirements and to account for port performance

discrepancies. (Basso, Abstract). For multicast transmissions, Basso describes a "Multicast Counter" (MCC) used to determine when all the instances have been transmitted so that the reference frame can be discarded. (Basso, para. [0085]). When the MCC reaches zero, the reference FCB and its associated buffers are discarded by returning them to the free FCB and free buffer queues respectively. (Basso, para. [0085]).

Claims 11, 17, and 24 require at least two separate values (a transmit count value and a release count value) to de-allocate said storage response element. Conversely, Basso describes the use of a multicast counter (MCC) used to determine when all the instances have been transmitted so that the reference frame can be discarded. (Basso, para. [0085]). Therefore, only one value is describe in Basso for determining when all the instances have been transmitted so that the reference frame can be discarded. Since only one value is described Basso fails to describe a memory controller to de-allocate said storage element in response to a determination that said incremented transmit count value is equal to said release count value.

Gulick describes a dual port timing controller (DPTC) in conjunction with an interprocessor communication register provides a shared random access memory (S-RAM). (Gulick, Abstract). The S-RAM can be accessed either by a local processor or a host processor which in a preferred configuration, controls an integrated circuit integrated services data protocol controller. (Gulick, Abstract). The DPTC provides control signals allowing an ordinary RAM to be operated as an S-RAM. (Gulick, Abstract).

Gulick, similar to Basso, fails to describe at least two separate values (a transmit count value and a release count value) to de-allocate said storage response element as required by claims 11, 17, and 24.

Because Basso and Gulick both fail to describe at least two separate values (a transmit count value and a release count value) to de-allocate said storage response element as required by claim 11, the combination fails to describe at least two separate values (a transmit count value and a release count value) to de-allocate said storage response element as required by claims 11, 17, and 24.

Specifically, the combination fails to describe an input module to store packet data within a storage element and to initialize a transmit count value, a processing element to determine a release count value and a memory controller to increment said transmit count value, a memory controller to increment said transmit count value and to de-allocate said storage element in response to a determination that said incremented transmit count value is equal to said release count value.

As such, the combination fails to describe each and every element of claims 11, 17, and 24, thus the combination fails to render claims 11, 17, and 24 obvious.

Claims 12-16

Applicants respectfully submit that claims 12-16 are dependent directly or indirectly on claim 11, thus include the same limitations as claim 11. As such, claims 12-16 are patentable for at least the same reasons as claim 11.

Claims 18-23

Applicants respectfully submit that claims 18-23 are dependent directly or

indirectly on claim 17, thus include the same limitations as claim 17. As such, claims 18-23 are patentable for at least the same reasons as claim 17.

Claims 25-30

Applicants respectfully submit that claims 25-30 are dependent directly or indirectly on claim 24, thus include the same limitations as claim 24. As such, claims 25-30 are patentable for at least the same reasons as claim 24.

New Claims

Applicant respectfully submits the new claims, claims 41-46, are allowable over Basso. Specifically, claim 41 requires maintaining a transmit count value of each one of said plurality of storage elements. Moreover, claim 41 requires determining a release count value of each one of said plurality of storage elements. Claim 41 also requires comparing said transmit count value and said release count value and de-allocating each one of said plurality of storage elements in response to comparing said transmit count value and said release count value.

As discussed above, Basso describes the use of a multicast counter (MCC) used to determine when all the instances have been transmitted so that the reference frame can be discarded. (Basso, para. [0085]). Therefore, only one value is describe in Basso for determining when all the instances have been transmitted so that the reference frame can be discarded. Since only one value is described Basso fails to describe comparing said transmit count value and said release count value.

The use of at least two separate values for de-allocating each one of said

plurality of storage elements gives the Applicant the added benefit of not needing to use an extra reference frame (a frame not transmitted) to create each instance of the multicast frame transmission. The use of the extra reference frame in Basso necessitates extra memory to retain this extra reference frame throughout the life of the frame. The need for extra memory is highlighted by the example in Basso that describes sending a multicast frame to three destinations and needing four FCBs. para. [0084]. This is further illustrated in Figure 5 as FCB 501 (the reference frame), FCB 1 502₁, FCB 2 502₂, and FCB 3 502₃. Furthermore, Basso would require more processing time to generate the extra reference frame.

Because Basso fails to describe maintaining a transmit count value of each one of said plurality of storage elements, determining a release count value of each one of said plurality of storage elements, comparing said transmit count value and said release count value, and de-allocating each one of said plurality of storage elements in response to comparing said transmit count value and said release count value; Basso fails to anticipate claim 41.

Claims 42-46

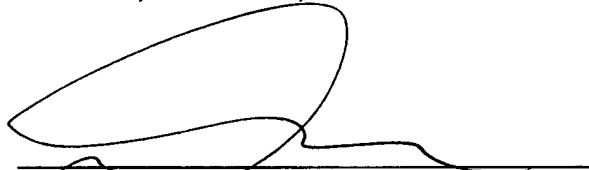
Applicants respectfully submit that claims 42-46 are dependent directly or indirectly on claim 41, thus include the same limitations as claim 41. As such, claims 42-46 are patentable for at least the same reasons as claim 41.

Conclusion

If the allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact the undersigned at (408) 720-8300. If there are any additional charges, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

A handwritten signature in black ink, appearing to read 'Daniel M. DeVos', is written over a horizontal line.

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Amendments to the Drawings

Examiner has objected to **Fig. 2** of the drawings and requests that the referenced character "212 B" be added to identify the "line card interconnect interface module" of Line Card 202B. Appropriate corrections have been made and a replacement sheet is hereby attached.

The Applicant also replaced the handwriting in the original figures. The replacement sheets for the original figures are hereby attached.